REMARKS

A review of the claims indicates that:

A)   Claims 2—4, 6—15, 17—22, 24, 26—36, 38, 39 and 41—44 remain in their original form.

B)   Claims 1, 5, 23, 25, 37 and 40 are currently amended.

C)   Claim 16 is currently cancelled.

In view of the following remarks, Applicant respectfully requests reconsideration of the rejected claims and withdrawal of the rejections.

Corrections to the Specification

The Applicant has corrected paragraph [0003], by adding the serial number, which is now known. However, the application referred to by [0003] has been allowed, but not issued. Therefore, the Applicant anticipates correcting paragraph [0003] again, when the patent number is known.

35 U.S.C. §103 Rejections

Claims 1, 23, 25 and 40 were rejected under §102(e) as being anticipated by U.S. Patent No. 5,782,692, hereinafter "Stelovsky." Additionally, Claims 16 and 26 were rejected under §103(a) as being unpatentable over of Stelovsky in view of U.S. patent 7,058,889 hereinafter "Trovato." Because the Applicant has amended the independent claims to recite the limitations in original Claims 16 and/or 26, the Applicant will address the Section 103(a) rejections of Claim 16 as they would apply to the independent claims, as amended.

Thus, Claim 1, as amended, retains the exact scope as original Claim 16.

The Applicant submits that the Office has failed to establish a *prima facie* case of anticipation and, in view of the comments below, respectfully traverses the Office's rejections and asks for reconsideration.

Traversal of Rejection of Independent Claim 1

Claim 1 recites a processor-readable medium comprising processor-executable instructions for personalizing karaoke, the processor-executable instructions comprising instructions for:

- segmenting visual content to produce a plurality of sub-shots;
- **segmenting music to produce a plurality of music sub-clips, wherein the segmenting establishes boundaries between the music sub-clips at beat positions within the music**; and
- displaying at least some of the plurality of sub-shots as a background to lyrics associated with the plurality of music sub-clips.

Claim 1 has been amended to recite, "segmenting music to produce a plurality of music sub-clips, wherein the segmenting establishes boundaries between the music sub-clips at beat positions within the music". The Applicant respectfully submits that the prior art of record does not teach or suggest such a segmentation, and requests that the Section 103 rejection be removed.

1.   **Travato does not teach or suggest segmentation at "beat positions. Instead, Travato teaches segmentation of audio into "voice" and "non-voice" segments."**

Trovato, at columns 7 and 8, teaches a segmentation method illustrated by Fig. 6, by which segmentation of an audio file may be performed to separate different parts of the file, such as voice and non-voice (see column 8, lines 45—50). The method uses a window (window 70 at column 8, lines 25—30 and Fig. 6) having two halves that is moved over the energy waveform 72 (column 8, lines 25—30 and Fig. 6). The area under the curve of the waveform within each window is compared (column 7, lines 35—42). When the difference between the area under the curve within the two windows exceeds a threshold (column 7, line 45), then a 'break' is implied (column 7, lines 50—60).

Travato does not teach or suggest using the dual window 70 technology to detect "beat positions" as recited in the claims. Instead, Travato teaches location of voice segments (column 8, lines 10—15) and the classification of those segments (column 8, line 28). The classification is between "voice" and "non-voice" (column 8, lines 45—50).

Accordingly, Travato does not teach or suggest the segmentation of audio tracks according to location of a "beat."

2.   Travato expressly teaches away from segmentation at beat positions by requiring a minimum increment of time in the 'window' that smooths transients.

Travato teaches (column 8, lines 55—60) that a one-second time period for the window will reduce the number of transient classifications. Essentially, Travato teaches that short sounds (like beats) should be smoothed over and their detection should be avoided. This is consistent with Travato's purpose, which is distinguishing between voice and non-voice (column 8, lines 45—50).

Thus, Travato does not teach or suggest a technology that is adapted to detect "beat position" as recited by the claim. Moreover, Travato teaches away from detection of short-duration sounds by merging them (column 7, lines 55—65) and enforcing a minimum increment of time (column 8, lines 55—60).

Accordingly, Travato does not teach or suggest the segmentation of audio tracks according to location of a "beat."

3.   Travato teaches away from segmentation by beat position, since close "onsets" and "offsets" are merged together.

Travato teaches that closely spaced "onsets" and "offsets" are merged together (column 7, lines 55—65). The Applicant submits that such merging is inconsistent with detection of a "beat position" since beats tend to be sounds of short duration. In particular, Travato teaches, "An offset break is also merged with its immediately following onset break, provided the two are close to each other. This is done to bridge any small gap between the end of one signal and the beginning of anther signal" (column 7, lines 61—65). The Applicant submits that this merging would essentially remove a brief sound, such as a "beat".

Accordingly, Travato teaches against the segmentation of audio tracks according to location of a sound that is brief in duration, such as a "beat position," as recited by the claim.

4.   <u>The Patent Office suggests that, "It is inherent from Figure 6 that weak onset breaks are not used as transition points". However, Travato clearly teaches a smoothing function to average spikes and beats.</u>

The Applicant respectfully submits that the break point is set when the difference between the average energy in the two windows 70 exceeds a threshold (column 7, lines 40—60). The use of windows is a smoothing function (column 8, lines 55—60) and is therefore designed not to react to spikes and beats. Moreover, the windows are kept open for at least 1 second, specifically to avoid detecting spikes, which is essentially what a beat is (column 8, lines 55—60). Thus, the Applicant submits that Travato does not teach a technology that is intended, or adapted, to detect beat positions.

5.   <u>The Patent Office's suggestion that, "It is inherent that segmentation is performed with respect to beat positions, because in modern</u>

music, tempo is measured in beats per minute," is not supported by Trovato and is not relevant.

The Patent Office's suggestion that since tempo is measured in beats per minute that segmentation must be performed at the beat locations is difficult to understand and appears to be an unsupported opinion. First, Trovato is not segmenting music, but is separating voice from non-voice (column 8, lines 45— 50). Thus, Trovato is not segmenting on the beat. Second, no argument or reasoning for why the measurement of tempo in units of beats per minute is relevant to segmenting on the beat is provided. The Applicant submits that the number of beats per minute is not relevant to the segmentation on the beat and requests further clarification.

6.   Stelovsky's teachings do not remedy the failings of Trovato.

The Applicant acknowledges the Patent Office's remarks that the Stelovsky reference does not teach or suggest the elements for which the Office relied on Trovato.

Therefore, the Applicant respectfully submits that Travato does not teach or suggest segmenting audio clips at the beat position. Accordingly, the Applicant respectfully requests that the Section 103 rejection—originally applied to Claim 16 and now applied to Claim 1 due to amendment of Claim 1 to the scope of original Claim 16—be removed and Claim 1 be allowed to issue.

Claims 2—15 and 17—22 depend from Claim 1 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1,

are not shown and not disclosed in references of record, either singly or in combination with one another.

Claims 23, 25 and 40 have been amended in a manner similar to Claim 1. Accordingly, these claims are allowable for substantially the same reasons as Claim 1.

Claims 24, 26—39 and 41—44 depend from Claims 23, 25 and 40 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1, are not shown and not disclosed in references of record, either singly or in combination with one another.

Conclusion

The Applicant submits that all of the claims are in condition for allowance and respectfully requests that a Notice of Allowability be issued. If the Office's next anticipated action is not the issuance of a Notice of Allowability, the Applicant respectfully requests that the undersigned attorney be contacted for the purpose of scheduling an interview.

Respectfully Submitted,

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